

Sub C1 6. (Amended) A method of interpolating a first set of discrete sample values to generate a second set of discrete sample values using an interpolation kernel, wherein said interpolation kernel is selected depending on an edge strength indicator, an edge direction indicator and an edge context indicator for each discrete sample value of said first set.

Sub C1 13. (Amended) The method according to claim 10, wherein said plurality of kernels are given by:

$$h(s_x, s_y)_{\theta=0} = \frac{1}{\sqrt{2}} \left\{ h(s_x)_{c=0.5} \cdot h(s_y)_{c=0} \right\}$$

$$h(s_x, s_y)_{\theta=\pi/2} = \frac{1}{\sqrt{2}} \left\{ h(s_x)_{c=0} \cdot h(s_y)_{c=0.5} \right\}$$

$$h(s_x, s_y)_{\theta=\pi/4} = \frac{1}{\sqrt{2}} \left\{ h\left(\frac{s_x + s_y}{2}\right)_{c=0.5} \cdot h\left(\frac{s_x - s_y}{2}\right)_{c=0} \right\}$$

$$h(s_x, s_y)_{\theta=3\pi/4} = \frac{1}{\sqrt{2}} \left\{ h\left(\frac{s_x + s_y}{\sqrt{2}}\right)_{c=0} \cdot h\left(\frac{s_x - s_y}{2}\right)_{c=0.5} \right\},$$

and wherein $s_x = x / \Delta x$ and $s_y = y / \Delta y$ are re-sampling distances in the horizontal and vertical directions, respectively, and \cdot indicates matrix multiplication.

Sub C1 23. (Amended) The computer readable medium according to claim 20, wherein said plurality of kernels are given by: